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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,384

06/03/2005

Richard N Fargo

60469-220;OT-5079

4539

7590

06/20/2007

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EXAMINER

SINGH, KAVEL

ART UNIT

PAPER NUMBER

3651

MAIL DATE

DELIVERY MODE

06/20/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/537,384

Applicant(s)

FARGO ET AL.

Examiner

Kavel P. Singh

Art Unit

3651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/03/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4,6,8-11,13-16,18,19,21, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Boltrek U.S. Patent No. 3,677,388.

Claim 1, Boltrek teaches an inner side adapted to engage a drive member (23) (C3 L1-2); and an outer side including a plurality of teeth (13) that are adapted to engage a corresponding portion of a step chain(11), the outer side teeth each including a base and a compressible projection (13+) distal from the base (Fig. 2).

Claim 2, Boltrek teaches the compressible (13+) projections are rounded (Fig. 2).

Claim 3, Boltrek teaches the teeth (13+) include a generally concave surface extending between the projection and the base (Fig. 2).

Claims 4,6,15, and 16, Boltrek teaches the teeth (13+) each have an engaging surface profile that includes the compressible projection, the engaging surface including a first concave portion having a first radius of curvature beginning adjacent the base, a second

Art Unit: 3651

concave portion having a second radius of curvature adjacent the first portion and a third concave portion having a third radius of curvature extending between the second portion and the projection (Fig. 2) (C3 L23-28).

Claim 8, Boltrek teaches the teeth (13+) each include a relief near the projection that increases the compliance of the tooth near the projection (C3 L38-40).

Claim 9, Boltrek teaches the teeth comprise a urethane material (C3 L32-33).

Claims 10,11,21, and 22, Boltrek teaches a second plurality of teeth on the inner side and wherein the plurality of teeth on the outer side have a first pitch that is different and than a second pitch of the second plurality of teeth and is finer than the first pitch (C3 L47-50).

Claim 13, Boltrek teaches a step chain (11) having a plurality of links (13) each having a plurality of engaging members (C2 L70-71); a drive mechanism (23); and a belt having an inner side that cooperates with the drive mechanism and an outer side including a plurality of teeth having engaging surfaces that are at least partially concave and that cooperate with the engaging members on the step chain so that movement of the drive mechanism causes movement of the belt which causes movement of the step chain (Fig. 2) (C3 L1-5).

Claim 14, Boltrek teaches the step chain (13) engaging members include teeth (13+) having a convex surface that is at least partially received within the concave portion of the belt teeth engaging surfaces (Fig. 2).

Art Unit: 3651

Claims 18 and 19, Boltrek teaches the first, second and third portions establish the concave portion of the engaging surface and the projection establishes a convex portion of the engaging surface (Fig 2) (C3 L35-36).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5,7,12,17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boltrek U.S. Patent No. 3,677,388.

Claims 5 and 17, Boltrek teaches the teeth (13+) each have a height dimension and wherein the first radius of curvature is approximately one-sixth of the height dimension, the second radius of curvature is at least six times the first radius and the third radius of curvature is at least three times the first radius (Fig. 2).

Claims 7 and 20, Boltrek teaches the teeth have a height dimension that is approximately 7 mm, the first radius is approximately 1.2 mm, the second radius is approximately 8 mm, the third radius is approximately 4.5 mm, the first projection radius is approximately 3 mm and the second projection radius is approximately 0.5 mm.

Claim 12, Boltrek teaches the second pitch is approximately one-half of the first pitch (Fig. 2).

Art Unit: 3651

The recitation of the dimension of the belt height, radius, and pitch angle dimensions appear to be an obvious design choice and expedient in view of *Gardner v. TEC Systems Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984). The Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Kavel P. Singh whose telephone number is (571) 272-2362. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3651

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KPS



GENE O. CRAWFORD  
SUPERVISORY PATENT EXAMINER